IN THE CLAIMS

Please cancel without prejudice claims 2-4, 7, 9-11, and 16-19.

Please amend claims 1, 5-6, 8, 12-13, 15, and 22-23 as indicated below.

Please add new claims 24 and 25 as indicated below.

1. (Currently Amended) A method, comprising:

[[a.]] converting a television broadcasting signal into a digitized video signal, including sampling the television broadcasting signal at an integer multiple of a frequency of a chrominance sub-carrier to generate digitized samples, and storing a number of the digitized samples in a storage medium;

calculating a constancy value in a horizontal dimension (H constancy value), a vertical dimension (V constancy value) and a temporal dimension (T constancy value), calculating a constancy in the horizontal dimension including measuring an absolute value between two of the digitized samples on a same scan line that have same phases of the chrominance sub-carrier to establish the H constancy value;

[[b.]] separating luminance information and chrominance information of the digitized video signal in a dimension that has a constancy value below a predetermined threshold level, the constancy value representing an amount of variation among discrete samples of the digitized video signal within the dimension, separating luminance information and chrominance information including selecting a horizontal filter to perform the separation if the H constancy value is less than the predetermined threshold level, the separation including

adding or subtracting discrete samples of the digitized video signal on the same scan line that are 180° out-of-phase; and

[[c.]] optionally converting the separated luminance information and chrominance information into a first output format, wherein the first output format conforms to input requirements of a display apparatus.

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Currently Amended) The method according to claim [[3]] 1, further comprising:

measuring an absolute value between a first digitized sample and a second digitized sample to establish the V constancy value, wherein the first digitized sample is in a particular position within a first scan line, the second digitized sample is in the same particular position within a second scan line, and the first scan line and the second scan line have same phases of the chrominance sub-carrier.

6. (Currently Amended) The method according to claim [[3]] 1, further comprising:

measuring an absolute value between a first digitized sample and a second digitized sample to establish the T constancy value, wherein the first digitized sample is in a particular position within a first frame, the second digitized sample is in the same particular position within a second frame, and the first frame and the second frame have same phases of the chrominance sub-carrier.

7. (Canceled)

8. (Currently Amended) A computer-readable medium including a plurality of instructions readable therefrom, the instructions, when executed by a computer system, cause the computer system to perform operations comprising:

[[a.]] converting a television broadcasting signal into a digitized video signal, including sampling the television broadcasting signal at an integer multiple of a frequency of a chrominance sub-carrier to generate digitized samples, and storing a number of the digitized samples in a storage medium;

calculating a constancy value in a horizontal dimension (H constancy value), a vertical dimension (V constancy value) and a temporal dimension (T constancy value), calculating a constancy in the horizontal dimension including measuring an absolute value between two of the digitized samples on a same scan line that have same phases of the chrominance sub-carrier to establish the H constancy value;

[[b.]] separating luminance information and chrominance information of the digitized video signal in a dimension that has a constancy value below a predetermined threshold level, the constancy value representing an amount of variation among discrete samples of the digitized video signal within the dimension, separating luminance information and chrominance information including selecting a horizontal filter to perform the separation if the H constancy value is less than the predetermined threshold level, the separation including

adding or subtracting discrete samples of the digitized video signal on the same scan line that are 180° out-of-phase; and

[[c.]] optionally converting the separated luminance information and chrominance information into a first output format, wherein the first output format conforms to input requirements of a display apparatus.

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Currently Amended) The machine readable medium according to claim [[10]] 8, the instructions further comprising:

measuring an absolute value between a first digitized sample and a second digitized sample to establish the V constancy value, wherein the first digitized sample is in a particular position within a first scan line, the second digitized sample is in the same particular position within a second scan line, and the first scan line and the second scan line have same phases of the chrominance sub-carrier.

13. (Currently Amended) The machine readable medium according to claim [[10]] 8, the instructions further comprising:

measuring an absolute value between a first digitized sample and a second digitized sample to establish the T constancy value, wherein the first digitized sample is in a particular position within a first frame, the second digitized sample is in the

same particular position within a second frame, and the first frame and the second frame have same phases of the chrominance sub-carrier.

14. (Original) The machine readable medium according to claim 8, the instructions further comprising:

selecting an appropriate filter to perform the separating based on the constancy value.

15. (Currently Amended) An apparatus, comprising:

[[a.]] a bus;

[[b.]] a processor coupled to the bus;

[[c.]] a system controller coupled to the bus;

[[d.]] a storage medium coupled to the system controller; and

[[e.]] an improved video decoder, further comprising:

[[i.]] an analog-to-digital converter, coupled to the bus, to convert a television broadcasting signal into a digitized video signal <u>including sampling the television broadcasting signal at an integer multiple of a frequency of a chrominance sub-carrier to generate digitized samples</u> and store digitized samples of the digitized video signal in the storage medium;

[[ii.]] a constancy detector, coupled to the analog-to-digital convert, to determine a constancy value in a horizontal (hereinafter H constancy value), vertical (hereinafter V constancy value) and temporal (hereinafter T constancy value) dimension, the constancy value representing an amount of variation among discrete samples of the digitized video signal

within the respective dimension, and calculating a constancy in the horizontal dimension including

measuring an absolute value between two of the digitized samples on a same scan line that have same phases of the chrominance sub-carrier to establish the H constancy value;

[[iii.]] a luminance/chrominance separation engine, coupled to the constancy detector, to separate luminance information and chrominance information of the digitized video signal in a dimension that has a constancy value below a predetermined threshold level, the constancy value representing an amount of variation among discrete samples of the digitized video signal within the dimension, separating luminance information and chrominance information including

selecting a horizontal filter to perform the separation if the H constancy value is less than the predetermined threshold level, the separation including adding or subtracting discrete samples of the digitized video signal on the same scan line that are 180° out-of-phase; and

[[iv.]] a display encoder, coupled to the luminance/chrominance separation engine, to optionally convert the separated luminance information and chrominance information into a first output format, wherein the first output format conforms to input requirements of a display apparatus.

16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Currently Amended) The apparatus according to claim [[17]] 15, the constancy detector further measures an absolute value between a first digitized sample and a second digitized sample to establish the V constancy value, wherein the first digitized sample is in a particular position within a first scan line, the second digitized sample is in the same particular position within a second scan line, and the first scan line and the second scan line have same phases of the chrominance sub-carrier.

21. (Currently Amended) The apparatus according to claim [[17]] 15, the constancy detector further measures an absolute value between a first digitized sample and a second digitized sample to establish the T constancy value, wherein the first digitized sample is in a particular position within a first frame, the second digitized sample is in the same particular position within a second frame, and the first frame and the second frame have same phases of the chrominance sub-carrier.

22. (Currently Amended) ~~The method of claim 5, further comprising~~ A method, comprising:

converting a television broadcasting signal into a digitized video signal, including

sampling the television broadcasting signal at an integer multiple of a frequency of a chrominance sub-carrier to generate digitized samples, and

storing a number of the digitized samples in a storage medium;

calculating a constancy value in a horizontal dimension (H constancy value), a vertical dimension (V constancy value) and a temporal dimension (T constancy value), calculating a constancy value in a vertical dimension including

measuring an absolute value between a first digitized sample and a second digitized sample to establish the V constancy value, wherein the first digitized sample is in a particular position within a first scan line, the second digitized sample is in the same particular position within a second scan line, and the first scan line and the second scan line have same phases of the chrominance sub-carrier;

separating luminance information and chrominance information of the digitized video signal in a dimension that has a constancy value below a predetermined threshold level, the constancy value representing an amount of variation among discrete samples of the digitized video signal within the dimension, separating luminance information and chrominance information including

selecting a 2-D (two-dimensional) filter to perform the separation if the V constancy value is less than the predetermined threshold level, the separation including adding or subtracting discrete samples of the digitized video signal on the adjacent scan lines; and

optionally converting the separated luminance information and chrominance information into a first output format, wherein the first output format conforms to input requirements of a display apparatus.

23. (Currently Amended) ~~The method of claim 6, further comprising~~ A method, comprising:

converting a television broadcasting signal into a digitized video signal, including

sampling the television broadcasting signal at an integer multiple of a frequency of a chrominance sub-carrier to generate digitized samples, and

storing a number of the digitized samples in a storage medium;

calculating a constancy value in a horizontal dimension (H constancy value), a vertical dimension (V constancy value) and a temporal dimension (T constancy value), calculating a constancy value in a temporal dimension including

measuring an absolute value between a first digitized sample and a second digitized sample to establish the T constancy value, wherein the first digitized sample is in a particular position within a first frame, the second digitized sample is in the same particular position within a second frame, and the first frame and the second frame have same phases of the chrominance sub-carrier;

separating luminance information and chrominance information of the digitized video signal in a dimension that has a constancy value below a predetermined threshold level, the constancy value representing an amount of variation among discrete samples of the digitized video signal within the dimension, separating luminance information and chrominance information including

selecting a 3-D (three-dimensional) filter to perform the separation if the T constancy value is less than the predetermined threshold level, the separation including adding or subtracting discrete samples of the digitized video signal on different frames; and

optionally converting the separated luminance information and chrominance information into a first output format, wherein the first output format conforms to input requirements of a display apparatus.

24. (New) A computer-readable medium including a plurality of instructions readable therefrom, the instructions, when executed by a computer system, cause the computer system to perform operations comprising:

converting a television broadcasting signal into a digitized video signal, including

sampling the television broadcasting signal at an integer multiple of a frequency of a chrominance sub-carrier to generate digitized samples, and

storing a number of the digitized samples in a storage medium;

calculating a constancy value in a horizontal dimension (H constancy value), a vertical dimension (V constancy value) and a temporal dimension (T constancy value), calculating a constancy value in a vertical dimension including

measuring an absolute value between a first digitized sample and a second digitized sample to establish the V constancy value, wherein the first digitized sample is in a particular position within a first scan line, the second digitized sample is in the same particular position within a second scan line, and the first scan line and the second scan line have same phases of the chrominance sub-carrier;

separating luminance information and chrominance information of the digitized video signal in a dimension that has a constancy value below a predetermined threshold level, the constancy value representing an amount of variation among discrete samples of the digitized video signal within the dimension, separating luminance information and chrominance information including

selecting a 2-D (two-dimensional) filter to perform the separation if the V constancy value is less than the predetermined threshold level, the

separation including adding or subtracting discrete samples of the digitized video signal on the adjacent scan lines; and

optionally converting the separated luminance information and chrominance information into a first output format, wherein the first output format conforms to input requirements of a display apparatus.

25. (New) A computer-readable medium including a plurality of instructions readable therefrom, the instructions, when executed by a computer system, cause the computer system to perform operations comprising:

converting a television broadcasting signal into a digitized video signal, including

sampling the television broadcasting signal at an integer multiple of a frequency of a chrominance sub-carrier to generate digitized samples, and

storing a number of the digitized samples in a storage medium;

calculating a constancy value in a horizontal dimension (H constancy value), a vertical dimension (V constancy value) and a temporal dimension (T constancy value), calculating a constancy value in a temporal dimension including

measuring an absolute value between a first digitized sample and a second digitized sample to establish the T constancy value, wherein the first digitized sample is in a particular position within a first frame, the second digitized sample is in the same particular position within a second frame, and the first frame and the second frame have same phases of the chrominance sub-carrier;

separating luminance information and chrominance information of the digitized video signal in a dimension that has a constancy value below a predetermined threshold

level, the constancy value representing an amount of variation among discrete samples of the digitized video signal within the dimension, separating luminance information and chrominance information including

selecting a 3-D (three-dimensional) filter to perform the separation if the T constancy value is less than the predetermined threshold level, the separation including adding or subtracting discrete samples of the digitized video signal on different frames; and

optionally converting the separated luminance information and chrominance information into a first output format, wherein the first output format conforms to input requirements of a display apparatus.